

In the next 6-12 months I intend to first finish a few lines of work that I started early but had on the backburner for a while. This includes in particular the secondary production matrices for cosmic-ray inelastic collisions that I am deriving using standard interaction Monte-Carlo codes. This also includes deriving a model of the interstellar radiation field that is a function of the angle between line-of-sight and photon direction of motion (besides frequency and location). This should allow us to properly calculate the anisotropic inverse-Compton scattering. Two new things in the pipeline are (i) the deconvolution of the modern surveys of interstellar gas with particular attention to 21-cm self-absorption in the Galactic Plane and (ii) a model of the initial propagation of cosmic rays around their sources based on the Monte-Carlo method that can be added as a "new source" component to the large-scale cosmic-ray distribution given by global schemes like, e.g., Galdif, which cannot properly describe small-scale feature for systematic reasons. This will build on the work I did with Ingo Buesching that was published earlier this year in ApJ. BTW, my re-analysis of the localization and variability properties of the EGRET Galactic Center source 3EG &1746-2851 was accepted by ApJ and will be published in June.

Cheers,  
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